LIVER DYSFUNCTION IN PRETERM INFANTS Supporting information

Are preterm babies that are small for their gestational age at higher risk of parenteral nutrition-associated cholestasis (PNAC)?

A study in 445 VLBW infants (Costa, 2010) found that 55 had PNAC. Infants with cholestasis had lower birth weight and gestational age but similar birth weight z-score compared with infants without cholestasis, and they received a lower amount of enteral feeds (25.8 +/- 20.7 vs 67.9 +/- 33.0 mL/kg, P < .001), a greater amount of intravenous glucose (10.6 +/- 1.3 vs 7.5 +/- 2.5 g/kg, P < .0001), lipids (1.8 +/- 0.4 vs 1.3 +/- 0.5, P < .0001) and proteins (2.7 +/- 0.5 vs 1.9 +/- 0.7, P < .0001), and needed a higher number of days of fasting (13.2 +/- 6.7 vs 6.5 +/- 4.8, P < .001). Enteral intake between 0 and 21 days of life (OR 0.66; 95% CI 0.53, 0.81, P < .0001) and oxygen therapy (OR 1.05; 95% CI 1.01, 1.09; P = .030) were identified as the best independent predictors of PNAC. The authors concluded that small for gestational age infants did not have a higher risk of PNAC.

Costa S, Maggio L, Sindico P, et al. Preterm small for gestational age infants are not at higher risk for parenteral nutrition-associated cholestasis. J Pediatr 2010;156:575-9

Evidence Level: IV

Last amended July 2011
Last reviewed December 2021